

[SCANNER AND ASSOCIATED SCANNING HEAD DESIGN]

Abstract

A scanner that includes an outer casing, a platform, a scanning head, a driving device and a linear guide is provided. The scanning head further comprises a shell body, a scattering light source, a set of reflecting mirrors, a lens and a photo-sensor. The scanning head is able to move forward in a scanning direction. The shell body has a long side whose length is smaller than the length of the platform in a direction perpendicular to the scanning direction. Furthermore, the scattering light source has a length smaller than or equal to the length of the long side. With this design, a miniaturized and lighter scanning head is produced so that some material is saved and yet length of the scanning line for scanning a document and size of the platform remain unaffected. Additionally, platform area is fully utilized.